possible to maintain a half-way position between private medicine and the N.H.S. where intermittent dialysis is concerned, though it might become so if a complete renal unit was established providing not only training in dialysis but laboratory facilities, a comprehensive aftercare system, private hospital accommodation, and such extra medical and surgical treatment as might be required.

Role of the Married Nurse

It is widely believed that in the near future there will be few spinsters over the age of 20, and that hospitals which have in the past been largely staffed by these will have to depend on married women. A recent report[1] by the Dan Mason Research Committee supplies some of the facts about the situation which have hitherto been lacking.

A questionary was sent to a sample of nurses who qualified for the *Register* in 1950 and 1959, and for the Roll in 1950, 1954, and 1959. Only half the forms were returned, but 5,974 completed the questionary, and supplied information on their marital status, whether they were working, and, if so, whether they were nursing. Those who were employed received a longer questionary on their future plans about nursing and what inducements might bring them back to hospital or domiciliary work.

There will be few surprises in this report for those familiar with the problems of maintaining the nurse establishment in hospital, except perhaps that 25% of those who answered were still unmarried, so that spinsters are still not uncommon. Nurses in Britain have a firm belief that the welfare of a young family depends on the presence of the mother, and three-quarters of those who had children under 5 were not working.

The longer a nurse's break of service, the less likely she is to return to hospital, and this is perhaps a consequence of the pace of technical advance. Of those who planned to go back to nursing 83% were under 40 years old, though this group formed only 46% of the total. Nearly a half of the registered nurses and over a third of the enrolled were not in paid employment, but those who were working were nearly all engaged in nursing full- or part-time. Many of the older and married women were working outside hospital, and the expansion of domiciliary and public health work is seen as a way of relieving pressure on hospitals.

The most useful part of the report to hospital administrators should be that on deterrents to recruitment and proposals that would encourage return to nursing. There was general agreement on these in all the groups of nurses questioned. Choice of working hours and flexibility to meet family commitments were always at the top. There is no doubt that if planners are able to spend time and thought on duty rosters it is possible to fit in numbers of part-time and married staff, but it is also true that if unmarried nurses are asked to work an undue proportion of evenings, weekends, and public holidays staff relations are bound to be difficult.

Refresher courses had high priority on all lists, as did the provision of crèches and nurseries. Pay was mentioned only by about a third, but the fact that after a break of service the nurse starts again at the rate of a first-year staff-nurse was a constant grievance, and it ought to be one easy to remedy in a manner fair to everyone. Opportunities for promotion and equality of status were often wanted, and it is evident that married and part-time staff are not always integrated without friction.

One point that office sisters do not always remember is that part-time staff need permanent positions, and that if they get them their satisfaction in the job and their morale rise, so that absenteeism is less. It seems probable that patterns of nursing service in Britain are likely to follow those of the United States, where large numbers of married nurses work. It may therefore be appropriate to end with a quotation from an English nurse working in America: "Eight hours nursing, eight hours with the family, and eight hours sleep works very well."

[1] *Marriage and Nursing.* A Survey of Registered and Enrolled Nurses. Published by the Dan Mason Nursing Research Committee of the National Florence Nightingale Memorial Committee, London. 1967.

Allergy to Seminal Fluid

Acute anaphylaxis after sexual intercourse must be extremely rare. B. N. Halpern and his colleagues[1] have recently reported the case of a young woman who developed an anaphylactic response due to the presence of reaginic antibodies in her serum directed against a normal mucoprotein in human seminal fluid. The patient had no previous history of allergy, though she came from a highly "atopic" family—her mother had a long history of asthma and atopic eczema, a twin brother suffered from contact dermatitis, and a younger sister from atopic dermatitis. After her first sexual experience the patient developed generalized urticaria, oedema of the lips, eyelids, tongue, and pharynx, severe asthmatic dyspnoea accompanied by congestion of the mucous membranes, violent pelvic pain with uterine contractions, and general malaise culminating in loss of consciousness. Most of the symptoms recurred after every coitus; they reached a maximum within 15 to 30 minutes and took 24 hours to subside. The reaginic antibodies were of such high titre that seminal fluid diluted to one in a million still elicited a weal and flare reaction in her skin. Prausnitz–Küstner (P–K) reactions could be produced in normal subjects when her serum diluted as much as 1:100 was injected intradermally followed 24 hours later by seminal fluid. Passive anaphylaxis could also be obtained in monkeys. The antibodies did not react with spermatozoa and the patient had no other types of antibodies such as sperm agglutinins[2] or any "blocking" antibodies reacting in complement fixation, precipitation, or tanned red cell agglutination. Desensitization treatment with seminal fluid was tried in an attempt to induce such blocking antibodies, which are said to improve clinical symptoms in reaginic allergies, but it was unsuccessful in this patient. Chromatographic and electrophoretic separations of seminal proteins showed the antigen to be in the most basic fraction and the richest in sialic acid.

It was found that the P–K activity could be removed by precipitation with anti-IgA, and Halpern and his colleagues suggested, therefore, that the reaginic antibodies were in the patient's IgA globulins. The detailed and careful work of K. Ishizaka and his colleagues[3–6] strongly suggests, however, that reagins are in a newly defined class of immunoglobulins named IgE. These globulins have the same light chains as all classes of Ig but have antigenically distinct heavy chains with the unique capacity to adhere to cell surfaces, particularly of the mast cells and basophils which release the pharmacological mediators of anaphylactic hypersensitivity.

[1] Halpern, B. N., Kay, T., and Robert, B., *Immunology*, 1967, **12**, 247.
[2] Rumke, P., *Vox Sang*, 1954, **4**, 135.
[3] Ishizaka, K., and Ishizaka, T., *J. Allergy*, 1966, **37**, 169.
[4] —— —— and Lee, E. H., ibid., 1966, **37**, 336.
[5] —— —— ibid., 1966, **38**, 108.
[6] —— —— and Hornbrook, M. M., *J. Immunol.*, 1966, **97**, 75.